

WHAT IS CLAIMED IS:

- 5 1. A method of handling information comprising:
storing electronically readable information into a portable storage module
including an atomic resolution storage memory component; and
recalling selectively a portion of the information from the memory
component of the portable module into an information playback device for
consumption by a user.
- 10 2. The method of claim 1, wherein the storing step further includes
transferring the information from an external information source into the
memory component of the storage module.
- 15 3. The method of claim 2 and the transferring step further comprising:
selecting at least one of a stationary entertainment library and an internet
website as the external information source.
- 20 4. The method of claim 2 wherein the storing step further comprises:
providing multiple types of entertainment media as the electronically
readable information;
storing the entertainment media in the external information source; and
providing the information for user-initiated wireless transfer from the
external information source to the storage module.
- 25 5. The method of claim 1 and further comprising:
repeating the storing step to capture additional electronically readable
information into the memory component of the storage module.
- 30 6. The method of claim 1 wherein the recalling step further comprises the
information playback device including a notebook computer.

7. The method of claim 1, wherein the recalling step further comprises the information playback device comprising an audio player.
8. The method of claim 1, wherein the electronically readable information is
5 at least one of a book, a music collection, and a movie.
9. The method of claim 1, and further comprising:
containing the module within a housing and wearing the housed storage
module on or about a body of a user.
10
10. The method of claim 9, wherein the containing step further comprises:
arranging the storage module within at least one of a wristwatch, a neck
worn pendant, a bracelet, a cellular phone, a pair of eyeglasses, an image
display, a notebook computer, and an audio headset.
15
11. The method of claim 1 wherein, the storing step further comprises:
providing the storage module with a communication interface, and a
power supply.
12. The method of claim 11 wherein the providing step further comprises:
providing the communication interface with a wireless communication
path including infrared or radiofrequency paths.
20
13. The method of claim 11 wherein the memory component further includes
25 a controller for operating the storage device and communicating between the
memory component and the communication interface.
14. The method of claim 1 and further comprising:
performing the storing step and the recalling step in a broadband
30 frequency format.

15. A portable entertainment media storage module comprising:
a storage device including an atomic resolution storage memory
component capable of storing at least one entertainment media packet; and
a communication interface for communicating to and from the memory
5 component of the storage module.
16. The module of claim 15, wherein the communication interface includes
wireless communication technology.
- 10 17. The module of claim 16 wherein the wireless communication technology
includes at least one of a radio frequency communicator and an infrared
bandwidth communicator.
18. The module of claim 15, and further comprising at least one of a
15 microphone, a speaker, an input keypad, and a display for communicating with
the memory component of the storage device via the communication interface.
19. The module of claim 15, wherein the storage device further includes a
logic controller.
- 20 20. The module of claim 15, wherein the entertainment packet includes at
least one audio element.
21. The module of claim 20, wherein the audio element is a music CD.
- 25 22. The module of claim 15, wherein the entertainment packet includes at
least one printed media.
23. The module of claim 15, and further comprising a controller located on
30 the atomic resolution storage device.

24. The module of claim 15, wherein the atomic resolution storage device further comprises:

a field emitter fabricated by semiconductor microfabrication techniques capable of generating an electron beam current; and

5 a storage medium in proximity to the field emitter and having a storage area in one of a plurality of states to represent the information stored in the storage area.

25. The module of claim 24, wherein an effect is generated when the electron beam current bombards the storage area, wherein the magnitude of the effect depends upon the state of the storage area, and wherein the information stored in a storage area is read by measuring the magnitude of the effect.

26. The module of claim 24, further comprising:

15 a plurality of storage areas on the storage medium, with each storage area being similar to the one recited in claim 24; and

a microfabricated mover in the storage device to position different storage areas to be bombarded by the electron beam current.

20 27. The module of claim 26, further comprising:

a plurality of field emitters, with each emitter being similar to the one recited in claim 24, the plurality of field emitters being spaced apart, with each emitter being responsible for a number of storage areas on the storage medium; and

25 such that a plurality of the field emitters can work in parallel to increase the data rate of the storage device.

28. The module of claim 15 further comprising:

30 a housing which encloses the ultra-high capacity storage device and the communication interface.

29. An information transfer and consumption system comprising:
a portable entertainment media storage module comprising:
an atomic resolution storage device capable of storing at least one
entertainment media packet; and
5 a communication interface for communicating to and from the
storage device;
an information library of multiples types of entertainment media stored
as electronically readable information including:
a master memory module storing a collection of entertainment
10 media; and
a communication interface for selectively transferring a copy of a
selection of the entertainment media collection from the information
library to the storage device of the portable entertainment media storage
module; and
15 an entertainment media playback device for retrieving the entertainment
media from the storage device of the module and for making the entertainment
media available in a consumable format.

add
A1